

RAW SEQUENCE LISTING

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Application Serial Number: 10/080,943A
Source: IFW16
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IFW16

RAW SEQUENCE LISTING

DATE: 03/08/2005

PATENT APPLICATION: US/10/080,943A

TIME: 11:08:52

Input Set : A:\iu-99.ST25.txt

Output Set: N:\CRF4\03082005\J080943A.raw

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3 <110> APPLICANT: Indiana University Research and Technology Center
4   Field, Loren J.
5   Tsai, Shih-Chong
7 <120> TITLE OF INVENTION: P193 PROTEINS AND NUCLEIC ACIDS, AND USES THEREOF
9 <130> FILE REFERENCE: IU-99-PCT-US
11 <140> CURRENT APPLICATION NUMBER: 10/080,943A
12 <141> CURRENT FILING DATE: 2002-02-22
14 <150> PRIOR APPLICATION NUMBER: PCT/US00/23161
15 <151> PRIOR FILING DATE: 2000-08-23
17 <150> PRIOR APPLICATION NUMBER: US 60/150.266
18 <151> PRIOR FILING DATE: 1999-08-23
20 <160> NUMBER OF SEQ ID NOS: 13
22 <170> SOFTWARE: PatentIn version 3.3
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 5217
26 <212> TYPE: DNA
27 <213> ORGANISM: mus musculus
30 <220> FEATURE:
31 <221> NAME/KEY: CDS
32 <222> LOCATION: (62)..(5131)
34 <400> SEQUENCE: 1
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37   g atg gta ggg gag cta cga tac agg gaa ttc agg gtg ccc ctg ggg cct      109
38   Met Val Gly Glu Leu Arg Tyr Arg Glu Phe Arg Val Pro Leu Gly Pro
39   1           5           10          15
41   ggc ttg cac gcg tat ccg gat gaa ttg atc cgc caa cgg gtt ggc cat      157
42   Gly Leu His Ala Tyr Pro Asp Glu Leu Ile Arg Gln Arg Val Gly His
43           20          25          30
45   aat ggg cac ccc gag tat cag atc cgc tgg ctc atc ctc agg cgc ggg      205
46   Asn Gly His Pro Glu Tyr Gln Ile Arg Trp Leu Ile Leu Arg Arg Gly
47           35          40          45
49   gat gat ggg gac cgg gac tct aca gtg gac tgc aag gct gag cat atc      253
50   Asp Asp Gly Asp Arg Asp Ser Thr Val Asp Cys Lys Ala Glu His Ile
51           50          55          60
53   ctg tta tgg atg tct gac gat gag atc tat gcc aac tgc cac aag atg      301
54   Leu Leu Trp Met Ser Asp Asp Glu Ile Tyr Ala Asn Cys His Lys Met
55   65           70          75          80
57   ctg ggc gag aat ggc caa gtc atc gca cct tcc cgg gag tcc act gag      349
58   Leu Gly Glu Asn Gly Gln Val Ile Ala Pro Ser Arg Glu Ser Thr Glu
59           85          90          95
61   gca ggg gcc ctc gac aag tct gtg ctg ggg gag atg gaa aca gat gtg      397
62   Ala Gly Ala Leu Asp Lys Ser Val Leu Gly Glu Met Glu Thr Asp Val
63           100         105         110

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65	aag tcc ttg att cag agg gcc ctt cgg cag ctg gag gag tgc gtg ggc	445
66	Lys Ser Leu Ile Gln Arg Ala Leu Arg Gln Leu Glu Glu Cys Val Gly	
67	115 120 125	
69	acc gtg cct cct gcc cct ctc ctt cac acg gtc cat gta ctc agt gcc	493
70	Thr Val Pro Pro Ala Pro Leu Leu His Thr Val His Val Leu Ser Ala	
71	130 135 140	
73	tat gcc agc atc gag ccc ctc act ggc atc ttc aaa gac cgc agg gtt	541
74	Tyr Ala Ser Ile Glu Pro Leu Thr Gly Ile Phe Lys Asp Arg Arg Val	
75	145 150 155 160	
77	gtg aac ttg ctc atg cac atg ttg agc agt cct gat tat cag atc cgc	589
78	Val Asn Leu Leu Met His Met Leu Ser Ser Pro Asp Tyr Gln Ile Arg	
79	165 170 175	
81	tgg agc gca ggc cgg atg atc caa gct ctg tcc tcc cac gat gct ggg	637
82	Trp Ser Ala Gly Arg Met Ile Gln Ala Leu Ser Ser His Asp Ala Gly	
83	180 185 190	
85	acc cgg acc cag atc ctt ctg tca ttg agc caa caa gag gcc att gaa	685
86	Thr Arg Thr Gln Ile Leu Leu Ser Leu Ser Gln Gln Glu Ala Ile Glu	
87	195 200 205	
89	aag cac ctg gat ttt gat agc cgc tgc gct ctg ctt gca ctg ttc gcc	733
90	Lys His Leu Asp Phe Asp Ser Arg Cys Ala Leu Leu Ala Leu Phe Ala	
91	210 215 220	
93	cag gct act ctc acg gaa cac ccg atg tct ttc gag ggc gtt cag ctg	781
94	Gln Ala Thr Leu Thr Glu His Pro Met Ser Phe Glu Gly Val Gln Leu	
95	225 230 235 240	
97	cca cag gtc cca gga cgg ctg ctc ttc tcc ctg gta aaa cgc tac ctg	829
98	Pro Gln Val Pro Gly Arg Leu Leu Phe Ser Leu Val Lys Arg Tyr Leu	
99	245 250 255	
101	cac gtc acc ttc ctc ctg gat cgg ctg aac ggc gat gca ggg gat caa	877
102	His Val Thr Phe Leu Leu Asp Arg Leu Asn Gly Asp Ala Gly Asp Gln	
103	260 265 270	
105	gga gcc cag aac aac ttt agt cct gag gag ttg aat gta ggg agg ggc	925
106	Gly Ala Gln Asn Asn Phe Ser Pro Glu Glu Leu Asn Val Gly Arg Gly	
107	275 280 285	
109	cgg ctg gaa ctg gaa ttc agt atg gcc atg ggc act ctg atc tct gag	973
110	Arg Leu Glu Leu Glu Phe Ser Met Ala Met Gly Thr Leu Ile Ser Glu	
111	290 295 300	
113	ctg gtg cag gcc atg cgc tgg gac ggg gcc tca agc aga cca gag agt	1021
114	Leu Val Gln Ala Met Arg Trp Asp Gly Ala Ser Ser Arg Pro Glu Ser	
115	305 310 315 320	
117	tct tcc tcc tcc acc ttc cag cct cgg cca gca cag ttc cgc ccc tac	1069
118	Ser Ser Ser Ser Thr Phe Gln Pro Arg Pro Ala Gln Phe Arg Pro Tyr	
119	325 330 335	
121	acc cag cgt ttc agg agg tgc agg cgg ttt cgc ccc cgt gcc tgc ttt	1117
122	Thr Gln Arg Phe Arg Arg Ser Arg Arg Phe Arg Pro Arg Ala Ser Phe	
123	340 345 350	
125	gcc agt ttt aat acc tat gcc ttg tat gtg cgg gac acg ctg cgg ccc	1165
126	Ala Ser Phe Asn Thr Tyr Ala Leu Tyr Val Arg Asp Thr Leu Arg Pro	
127	355 360 365	
129	ggg atg cgg gta cgg atg ctg gag aat tac gag gag atc gct gct ggg	1213

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130	Gly	Met	Arg	Val	Arg	Met	Leu	Glu	Asn	Tyr	Glu	Glu	Ile	Ala	Ala	Gly	
131		370					375				380						
133	gat	gag	ggc	cag	ttc	cga	cag	agc	aat	gat	ggc	gtt	ccc	cca	gcg	cag	1261
134	Asp	Glu	Gly	Gln	Phe	Arg	Gln	Ser	Asn	Asp	Gly	Val	Pro	Pro	Ala	Gln	
135	385					390					395					400	
137	gtg	ttg	tgg	gat	tca	aca	ggc	cat	acc	tac	tgg	gtg	cac	tgg	cac	atg	1309
138	Val	Leu	Trp	Asp	Ser	Thr	Gly	His	Thr	Tyr	Trp	Val	His	Trp	His	Met	
139					405					410					415		
141	ctg	gag	atc	ttg	ggc	ttt	gag	gaa	gac	atc	gag	gat	gtg	att	gat	att	1357
142	Leu	Glu	Ile	Leu	Gly	Phe	Glu	Glu	Asp	Ile	Glu	Asp	Val	Ile	Asp	Ile	
143				420					425					430			
145	gaa	gag	tta	cag	gag	cta	ggg	gcc	aat	gga	gca	ctg	agc	atc	gtc	ccg	1405
146	Glu	Glu	Leu	Gln	Glu	Leu	Gly	Ala	Asn	Gly	Ala	Leu	Ser	Ile	Val	Pro	
147			435				440					445					
149	ccg	tcc	cag	cgc	tgg	aag	ccc	ata	act	cag	ctc	ttt	gcc	gag	cct	tac	1453
150	Pro	Ser	Gln	Arg	Trp	Lys	Pro	Ile	Thr	Gln	Leu	Phe	Ala	Glu	Pro	Tyr	
151		450				455					460						
153	gtg	gta	ccc	gag	gag	gaa	gac	agg	gaa	gag	agc	gag	aac	ttg	acc	cag	1501
154	Val	Val	Pro	Glu	Glu	Glu	Asp	Arg	Glu	Glu	Ser	Glu	Asn	Leu	Thr	Gln	
155	465				470					475					480		
157	gct	gag	tgg	tgg	gag	ctc	ctc	ttc	ttc	atc	cgg	cag	ttg	agt	gag	gca	1549
158	Ala	Glu	Trp	Trp	Glu	Leu	Leu	Phe	Phe	Ile	Arg	Gln	Leu	Ser	Glu	Ala	
159				485					490					495			
161	gag	cgc	ctt	cac	atc	gtg	gat	ctc	ctg	caa	gac	cac	ctg	gaa	gag	gag	1597
162	Glu	Arg	Leu	His	Ile	Val	Asp	Leu	Leu	Gln	Asp	His	Leu	Glu	Glu	Glu	
163			500					505					510				
165	cgc	gtt	ctg	gac	tac	gat	atg	ctg	cct	gag	ctg	acc	gtg	ccc	gtt	gac	1645
166	Arg	Val	Leu	Asp	Tyr	Asp	Met	Leu	Pro	Glu	Leu	Thr	Val	Pro	Val	Asp	
167		515					520					525					
169	ttg	gcc	cag	gat	ctg	ctg	ttg	tct	ctg	cct	cag	caa	ctt	gag	gac	agt	1693
170	Leu	Ala	Gln	Asp	Leu	Leu	Leu	Ser	Leu	Pro	Gln	Gln	Leu	Glu	Asp	Ser	
171		530				535					540						
173	gct	ctg	agg	gac	ctg	ttc	agc	tgc	agt	gtc	tac	agg	aag	tat	ggg	ccc	1741
174	Ala	Leu	Arg	Asp	Leu	Phe	Ser	Cys	Ser	Val	Tyr	Arg	Lys	Tyr	Gly	Pro	
175	545				550					555					560		
177	gaa	gtc	ctg	gta	ggg	cat	cta	agc	tac	cca	ttt	gtg	cca	ggg	gcc	cag	1789
178	Glu	Val	Leu	Val	Gly	His	Leu	Ser	Tyr	Pro	Phe	Val	Pro	Gly	Ala	Gln	
179				565					570					575			
181	cca	aat	tta	ttc	gga	gcc	aat	gaa	gag	tct	gaa	gcc	aaa	gat	ccc	cca	1837
182	Pro	Asn	Leu	Phe	Gly	Ala	Asn	Glu	Glu	Ser	Glu	Ala	Lys	Asp	Pro	Pro	
183			580					585					590				
185	ctt	cag	agt	gcc	agc	cct	gcc	ctg	cag	cgc	ctg	gtg	gag	agc	ttg	ggc	1885
186	Leu	Gln	Ser	Ala	Ser	Pro	Ala	Leu	Gln	Arg	Leu	Val	Glu	Ser	Leu	Gly	
187		595					600					605					
189	ccc	gaa	ggg	gag	gtc	ctt	gtg	gaa	ctg	gaa	caa	gcc	ctc	ggc	tcc	gag	1933
190	Pro	Glu	Gly	Glu	Val	Leu	Val	Glu	Leu	Glu	Gln	Ala	Leu	Gly	Ser	Glu	
191		610				615					620						
193	gct	ccc	cag	gaa	act	gag	gtc	aag	tcc	tgc	ttg	ttg	cag	ctc	cag	gag	1981
194	Ala	Pro	Gln	Glu	Thr	Glu	Val	Lys	Ser	Cys	Leu	Leu	Gln	Leu	Gln	Glu	

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195	625		630		635		640	
197	cag	ccc	cag	ccc	ttc	ctc	gct	ctg
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201	agc	aac	aag	acc	ctg	cac	ctc	act
202	Ser	Asn	Lys	Thr	Leu	His	Leu	Thr
203					660		665	
205	gtg	aac	ttc	cca	gag	gcg	ctg	ttg
206	Val	Asn	Phe	Pro	Glu	Ala	Leu	Leu
207					675		680	
209	gcc	tgc	gtg	acc	tgc	ctt	cgg	tcc
210	Ala	Cys	Val	Thr	Cys	Leu	Arg	Ser
211					690		695	
213	cag	gaa	cta	atc	ttt	ttc	ctg	cac
214	Gln	Glu	Leu	Ile	Phe	Phe	Leu	His
215	705				710		715	
217	tat	gcg	gtg	ata	cta	aac	cag	cat
218	Tyr	Ala	Val	Ile	Leu	Asn	Gln	His
219					725		730	
221	gtc	ctg	gaa	aag	cac	cga	ggg	aaa
222	Val	Leu	Glu	Lys	His	Arg	Gly	Lys
223					740		745	
225	gat	atg	gtg	tcc	aag	tgt	gag	aag
226	Asp	Met	Val	Ser	Lys	Cys	Glu	Lys
227					755		760	
229	acc	acc	aac	atc	ctg	ggc	ggt	tgc
230	Thr	Thr	Asn	Ile	Leu	Gly	Gly	Cys
231					770		775	
233	gaa	gac	cac	aga	cga	acc	cac	cgg
234	Glu	Asp	His	Arg	Arg	Thr	His	Arg
235	785				790		795	
237	gtg	ttt	ctc	aga	tat	ctg	tgc	cag
238	Val	Phe	Leu	Arg	Tyr	Leu	Cys	Gln
239					805		810	
241	aac	agg	tac	tgg	gag	aag	gtg	gag
242	Asn	Arg	Tyr	Trp	Glu	Lys	Val	Glu
243					820		825	
245	agc	agg	ctg	acg	gac	cgc	aac	ccc
246	Ser	Arg	Leu	Thr	Asp	Arg	Asn	Pro
247					835		840	
249	agg	gcc	ggc	tcc	cac	ttc	atc	acc
250	Arg	Ala	Gly	Ser	His	Phe	Ile	Thr
251					850		855	
253	atc	agg	cag	ctg	act	cta	ctg	gtg
254	Ile	Arg	Gln	Leu	Thr	Leu	Leu	Val
255	865				870		875	
257	cca	gcc	tgg	gtg	gtg	gta	tgc	ggg
258	Pro	Ala	Trp	Val	Val	Val	Cys	Gly
259					885		890	

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262 Lys Glu Leu Asn Thr Val Asn Val Met Pro Ser Ala Ser Arg Val Thr
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265 ctc ctg gag aac ctg acc cgc ttc tgg ccc atc atc caa atc aga ata      2845
266 Leu Leu Glu Asn Leu Thr Arg Phe Trp Pro Ile Ile Gln Ile Arg Ile
267          915                      920                      925
269 aag cgc tgc cag cag ggt ggc att aac acg cgc atc cgg ggc cta gag      2893
270 Lys Arg Cys Gln Gln Gly Gly Ile Asn Thr Arg Ile Arg Gly Leu Glu
271          930                      935                      940
273 gtg ctg ggc ccc aag ccc acc ttc tgg cca gtg ttc cga gag caa ctg      2941
274 Val Leu Gly Pro Lys Pro Thr Phe Trp Pro Val Phe Arg Glu Gln Leu
275 945                      950                      955                      960
277 tgc cgg cac acg cgc ctc ttc tac atg gtt cgg gcc cag gca tgg agt      2989
278 Cys Arg His Thr Arg Leu Phe Tyr Met Val Arg Ala Gln Ala Trp Ser
279          965                      970                      975
281 cag gac ata gca gag gac cgc cgg agc ctt ctg cac ctg agt tct agg      3037
282 Gln Asp Ile Ala Glu Asp Arg Arg Ser Leu Leu His Leu Ser Ser Arg
283          980                      985                      990
285 cta aat ggg gct ctg cgc cat gaa cag aat ttt gca gag cgc ttc ctt      3085
286 Leu Asn Gly Ala Leu Arg His Glu Gln Asn Phe Ala Glu Arg Phe Leu
287          995                      1000                      1005
289 cct gat atg gag gcc gcc caa gca ctg agc aag acc tgc tgg gag      3130
290 Pro Asp Met Glu Ala Ala Gln Ala Leu Ser Lys Thr Cys Trp Glu
291          1010                      1015                      1020
293 gcg ctg gtc agc ccc ctg gtg cag aac att aca tct ccc gat gag      3175
294 Ala Leu Val Ser Pro Leu Val Gln Asn Ile Thr Ser Pro Asp Glu
295          1025                      1030                      1035
297 gac agc acc agc tcc ttg ggc tgg ctg ctg gat cag tac ttg gga      3220
298 Asp Ser Thr Ser Ser Leu Gly Trp Leu Leu Asp Gln Tyr Leu Gly
299          1040                      1045                      1050
301 tgc agg gag gct gcc tac aat ccc cag agc agg gct gct gct ttc      3265
302 Cys Arg Glu Ala Ala Tyr Asn Pro Gln Ser Arg Ala Ala Ala Phe
303          1055                      1060                      1065
305 tcc tcc cgg gtt cgc cgc ctt acc cac ctc ctg gtc cat gtg gag      3310
306 Ser Ser Arg Val Arg Arg Leu Thr His Leu Leu Val His Val Glu
307          1070                      1075                      1080
309 ccc cgt gag gca gca cct ccg gtg gtg gcc atc cct cga tcc aag      3355
310 Pro Arg Glu Ala Ala Pro Pro Val Val Ala Ile Pro Arg Ser Lys
311          1085                      1090                      1095
313 ggc agg aac aga atc cat gac tgg agc tac ttg atc acc cgg ggc      3400
314 Gly Arg Asn Arg Ile His Asp Trp Ser Tyr Leu Ile Thr Arg Gly
315          1100                      1105                      1110
317 ctt cca agt agc atc atg aag aac ctg acc cgc tgt tgg cgg tct      3445
318 Leu Pro Ser Ser Ile Met Lys Asn Leu Thr Arg Cys Trp Arg Ser
319          1115                      1120                      1125
321 gtg gtg gag gag cag atg aac aag ttt ctc agt gcg tcc tgg aaa      3490
322 Val Val Glu Glu Gln Met Asn Lys Phe Leu Ser Ala Ser Trp Lys
323          1130                      1135                      1140
325 gac gat gat ttc gta ccc cgc tat tgc gag cgc tat tac gtc ctg      3535

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